# FAIRCHILD

SEMICONDUCTOR®

# BC63916

## **Switching and Amplifier Applications**



1. Emitter 2. Collector 3. Base

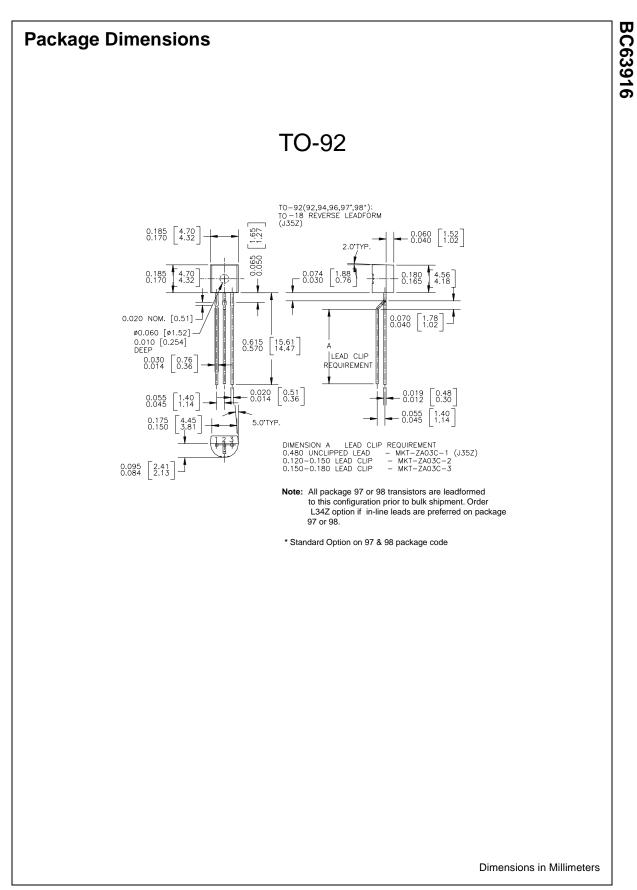
# NPN Epitaxial Silicon Transistor

## Absolute Maximum Ratings Ta=25°C unless otherwise noted

100	V
	•
100	V
80	V
5	V
1	A
1	W
nge -55 ~ 150	°C
	80 5 1 1

## **Electrical Characteristics** $T_a=25^{\circ}C$ unless otherwise noted

Symbol	Parameter Test Condition		Min.	Тур.	Max.	Units
BV <sub>CBO</sub>	Collector-Base Breakdown Voltage	$I_{\rm C} = 100 \mu {\rm A}, I_{\rm E} = 0$	100			V
BV <sub>CEO</sub>	Collector-Emitter Breakdown Voltage	$I_{\rm C} = 10 {\rm mA}, I_{\rm B} = 0$	80			V
BV <sub>EBO</sub>	Emitter-Base Breakdown Voltage	$I_{\rm E} = 10\mu A, I_{\rm C} = 0$	5.0			V
I <sub>CBO</sub>	Collector Cut-off Current	V <sub>CB</sub> = 30V, I <sub>E</sub> = 0			100	nA
I <sub>EBO</sub>	Emitter Cut-off Current	$V_{EB} = 5V, I_{C} = 0$			10	μΑ
h <sub>FE1</sub>	DC Current Gain	$V_{CE} = 2V, I_{C} = 5mA$	25			
h <sub>FE2</sub>		$V_{CE} = 2V, I_{C} = 150 \text{mA}$	100		250	
h <sub>FE3</sub>		$V_{CE} = 2V, I_{C} = 500 \text{mA}$	25			
V <sub>CE</sub> (sat)	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 500mA, I <sub>B</sub> = 50mA			0.5	V
V <sub>BE</sub> (on)	Base-Emitter On Voltage	$V_{CE} = 2V, I_{C} = 500 \text{mA}$			1	V
f <sub>T</sub>	Current Gain Bandwidth Product	$V_{CE} = 5V, I_C = 10mA,$ f = 50MHz		100		MHz



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